Euro-Climhist and *Collective Flood Memory*

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Two databases on climate history and disasters created by the Oeschger Centre for Climate Change Research in Bern

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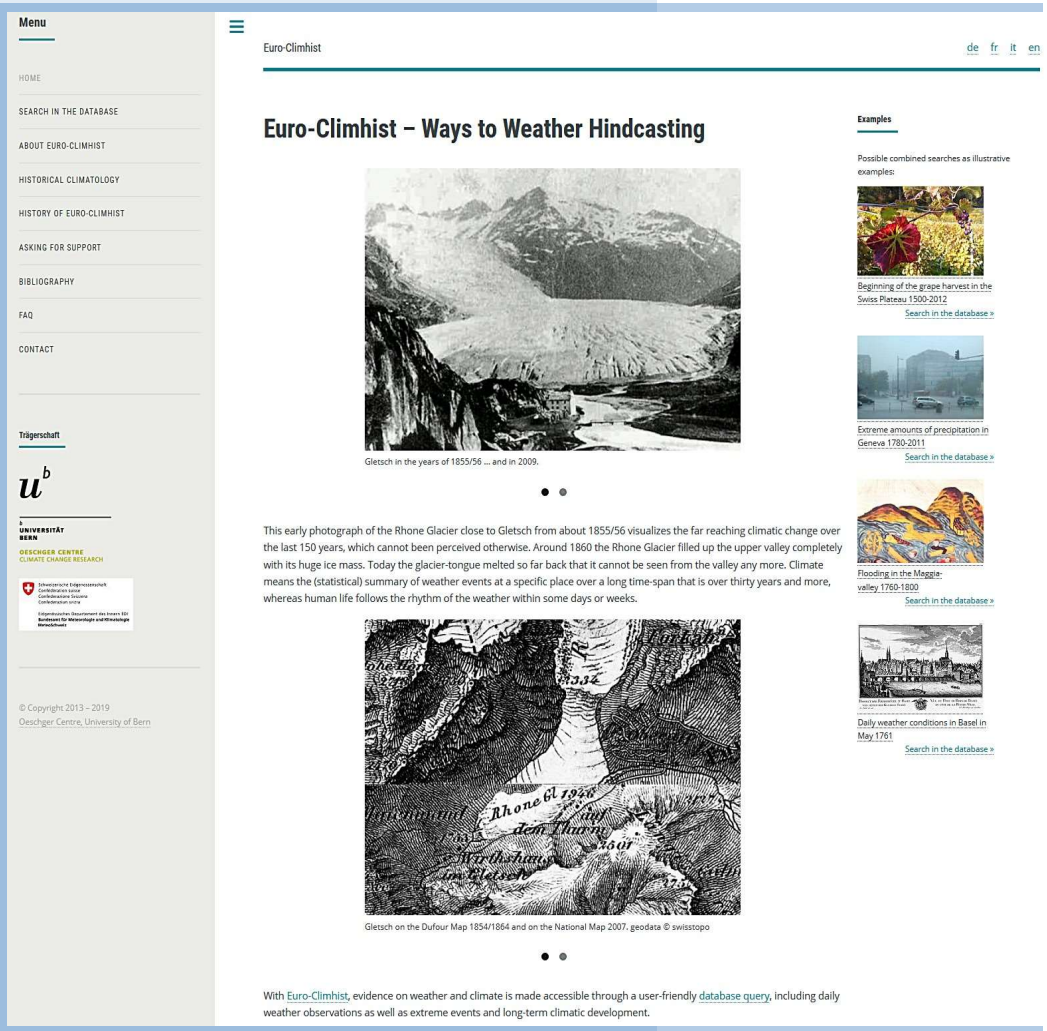
Roundtable “Defining Applied Environmental History”
ASEH Environmental History Week 2021



source: https://doi.org/10.48350/156070 | downloaded: 6.5.2023

Content

- Euro-Climhist – Ways to Weather Hindcasting
- Collective Flood Memory
- Potentials of citizen science in climate and disaster research

Euro-Climhist

www.euroclimhist.unibe.ch

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- Documentary and instrumental evidence to reconstruct historical weather and climate since the Middle Ages
- Development since the late 1970s (Christian Pfister)
- Professionalization of the database since 2010
  - Co-financed since 2010 by MeteoSwiss and Global Climate Observing Service (GCOS) Switzerland
- 2012/2015: Going Public
- National and international cooperation projects to enlarge the available datasets all over Europe
  - Currently approximately 350‘000 records available
  - 13th century to present
  - Scientific contributors as well as non-academic weather observers

Euro-Climhist

www.euroclimhist.unibe.ch

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- Accompanying website with introductory texts for scholars and a general public, e.g.:
  - Historical climatology and the methods used
  - Sources for climate history
- Data on weather and climatic development for the last 700 years
- Types of datasets
  - Daily and partly even sub-daily weather observation and instrumental measurement
  - “Proxy data”, i.e. phenological observations (plants, snow), but also some tree-ring data etc.
  - 92 series, e.g. long series on temperature and precipitation, ice-breakups, grain prices, etc.
  - Information about damage caused by weather and climate including the impact on humans, animals and infrastructure
  - Natural hazards and their consequences

Working with the Euro-Climhist database

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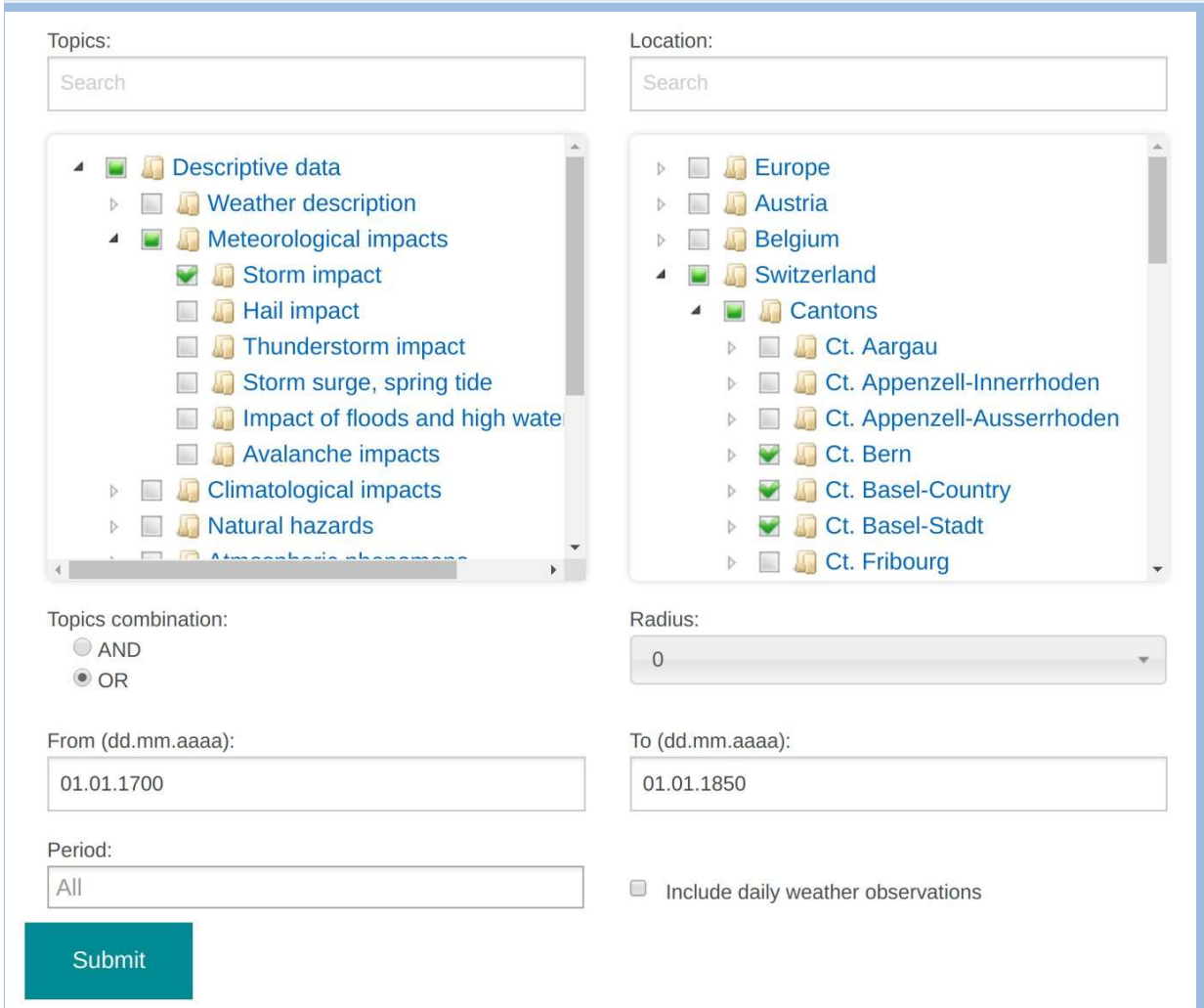
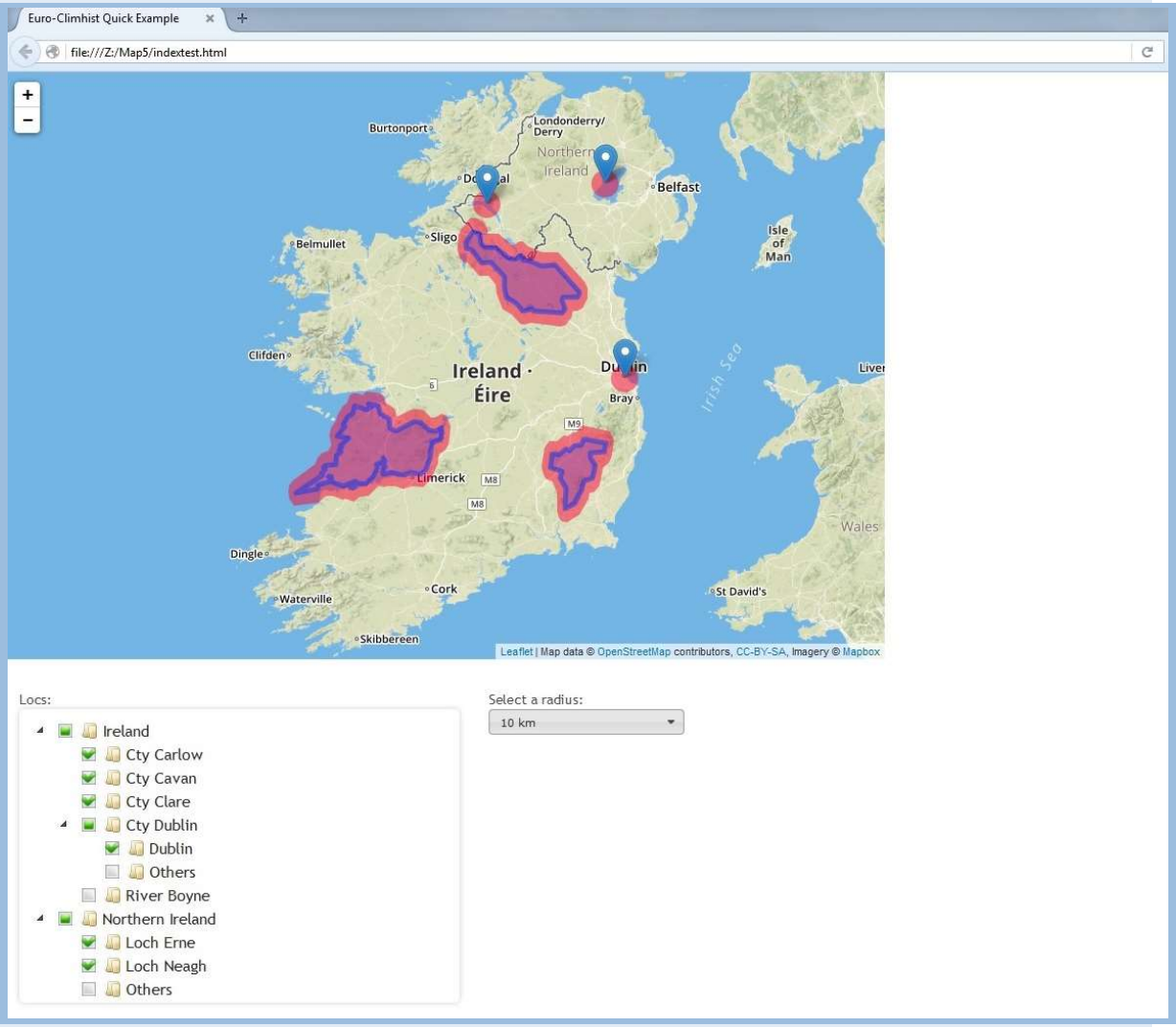


- Access as a standard user or scientific user
- Search engine available in four languages
  - English
  - French
  - German
  - Italian
- Search for single records or series
  - Spatial limitation
  - Specific timespan
  - Area request

Spatial visualisation of requests and results
Request according to political units and lakes



Data assessment by spatial visualisation
Floods in Switzerland, summer 1834

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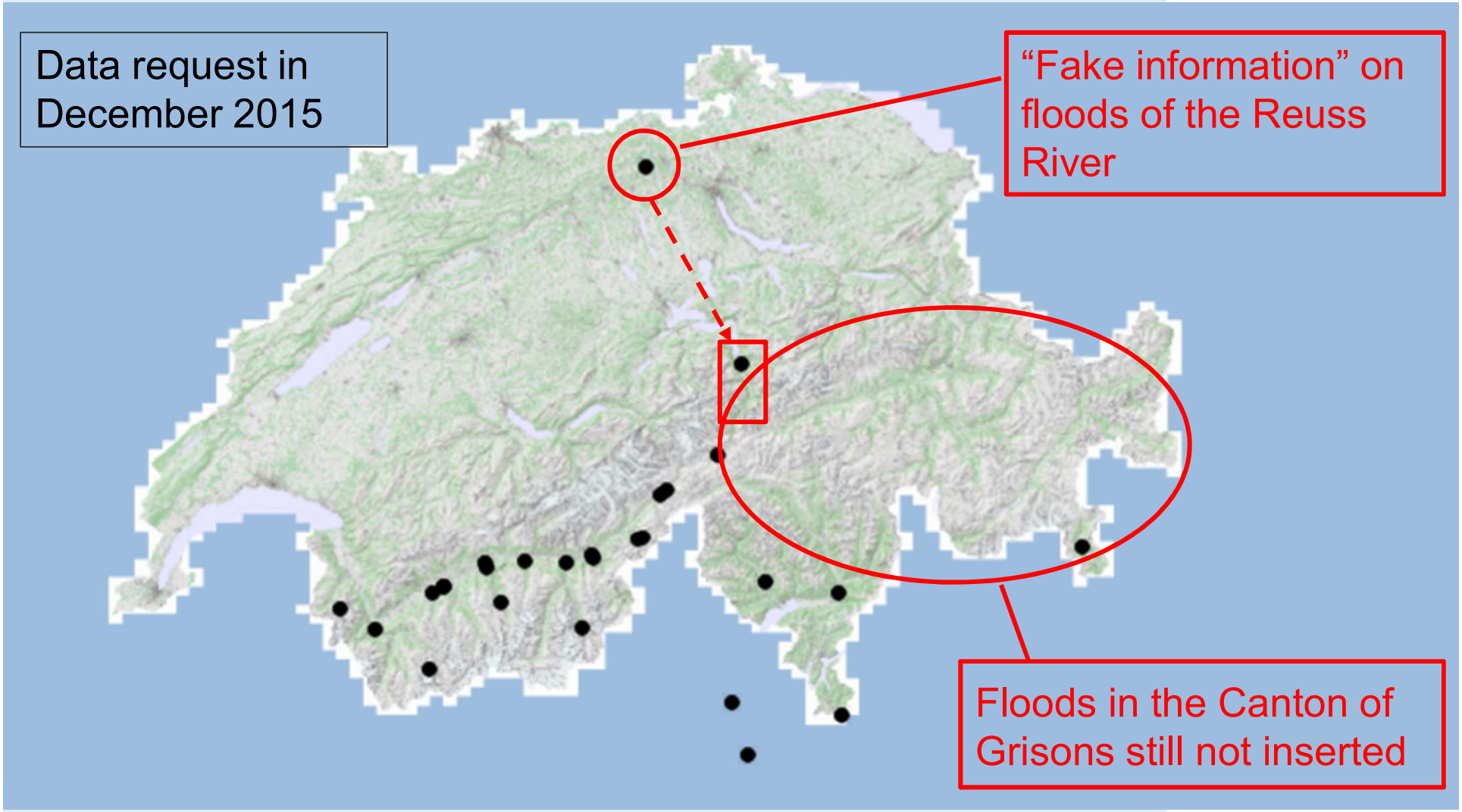
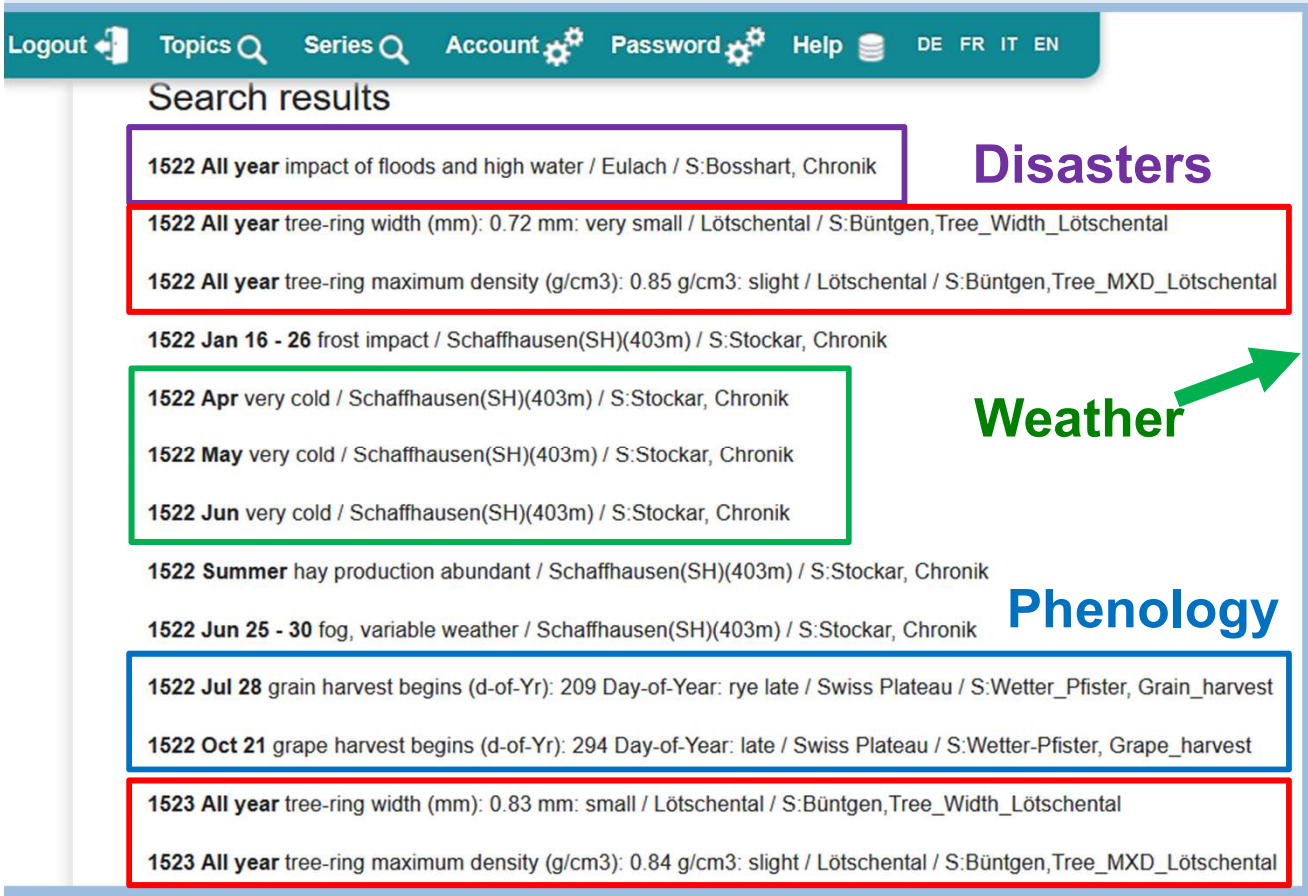


Weather reports and climate data
The example of Switzerland, 1522-1523



Uff den abereilen und miagen und brachett regnett es vast und was kalt, das ich aim halben dag zu pfingsten ain belzrock must ainlegen das ich wott erfrorn sin von keltin, und warm mian die stuben, ettlich lütt. Was vast kalt.“ (Hans Stockars Jerusalemfahrt 1519 und Chronik 1520-1529, ed. Karl Schib. Basel 1949: 36)

Collective Flood Memory
A new type of disaster memory and disaster awareness

- Blogs on single floods, e.g. the 2005 flood in the Matte quarter in Bern
- The “Collective Flood Memory” project (online since 2018)
  - Developed by the “Mobiliar Lab” at the Oeschger Centre for Climate Change Research, University of Bern (PI Olivia Romppainen-Martius)
  - Sponsored by the Mobiliar property and real estate insurance
  - Pictures support research on historical and future floods

Collective Flood Memory

https://www.ueberschwemmungsgedaechtnis.ch/de/home

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- Search options
  - Specific areas
  - Specific time span/event
- Call for active participation
  - Upload of own historical and current pictures
  - Assistance to locate uploaded pictures
- "Flood marks" of the 21st century?
  - Dimensions of floods become visible again
  - Bottom-up process shall enable more consciousness for a modern integrated flood prevention

Collective Flood Memory
Search for floods in Lucerne, 1910 to present

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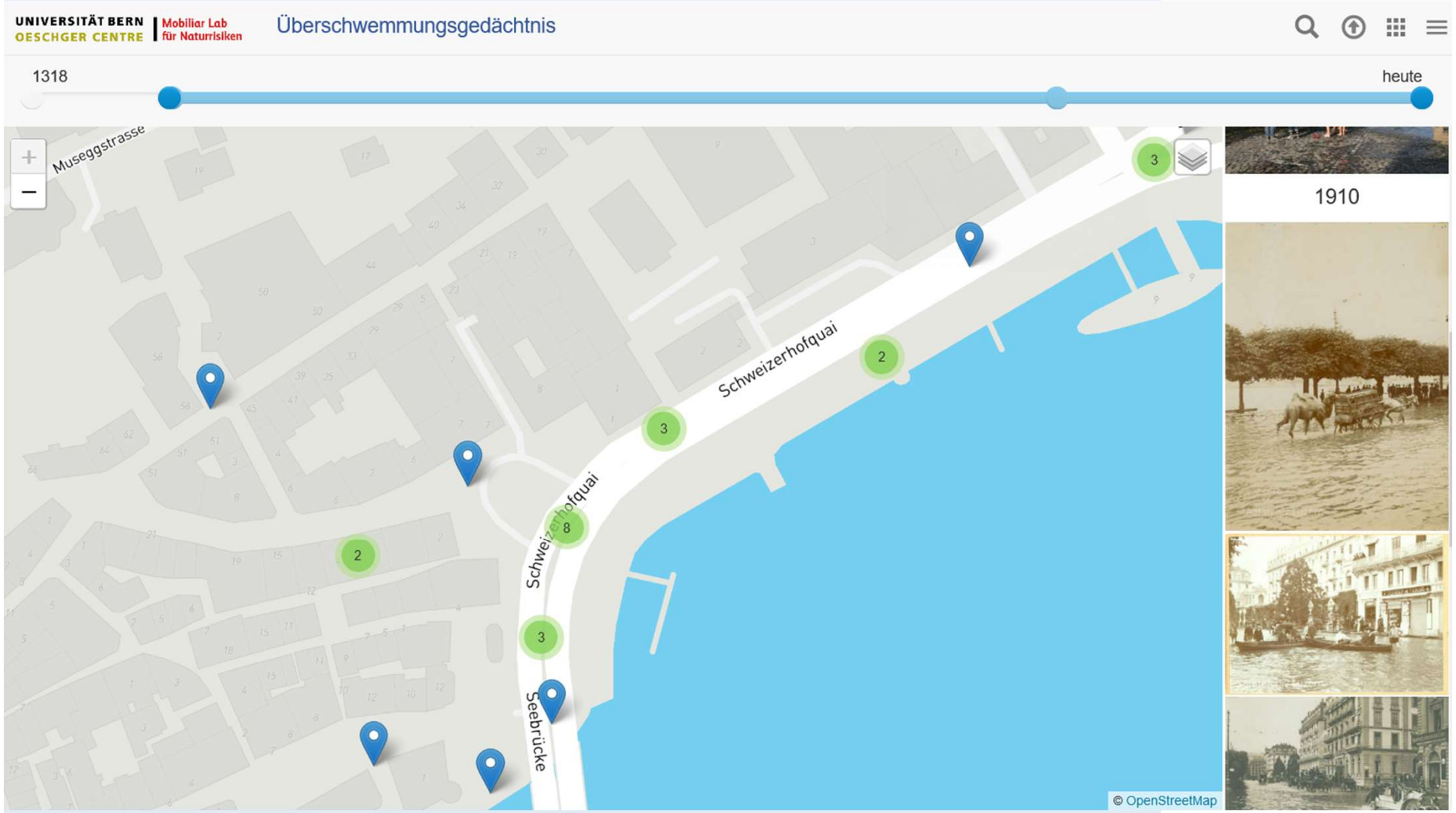

Potentials of citizen science in climate and disaster research

- Large number of photographs and other sources for climate and disaster research still in private collections
- Active participation via
  - Newspaper calls
  - School projects
- Flood awareness spread into a wider public
- Helpful initiative to reduce conflicts over flood prevention?

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Thank you for your attention!

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